

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/JP2004/014576

International filing date (day/month/year)
28.09.2004

Priority date (day/month/year)
09.10.2003

International Patent Classification (IPC) or both national classification and IPC
H01M8/02

Applicant
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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-13
Inventive step (IS)	Yes: Claims	
	No: Claims	1-13
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1 Cited documents

Reference is made to the following documents:

2 Novelty (Art. 33(2) PCT)

The present application relates to a seal structure for a fuel comprising an interrupted back-up disposed at least one of the connecting gas passage and the connecting coolant passage, said back-up located on one side of said separator and a portion of seal line located on the other side of said separator being disposed such that said back-up and said portion of said seal line are overlapped with each other in a fuel cell stacking direction.

D1 is prejudicial to the novelty of claims 1, 2, 4, 7, 8-10 (see fig. 2).

D2 is prejudicial to the novelty of claims 1, 2, 4, 7, 8-10 (see fig. 11, 12).

D3 is prejudicial to the novelty of claims 1-3, 5, 6, 10, 12 (see especially fig. 3d).

D4 is prejudicial to the novelty of claims 1-3, 5-13 (see especially fig. 3, 4, 8).

D5 is prejudicial to the novelty of claims 1-3, 5-12 (see especially fig. 6a).

D6 is prejudicial to the novelty of claims 1-3, 5-12 (see fig. 3-5).

D7 is prejudicial to the novelty of claims 1-4, 7-11 (see fig. 3).

The present application does not meet the requirements of Art. 33(2) PCT because

the subject-matter of claims 1-13 is not novel.

3 Inventive step (Art. 33(3) PCT)

The closest prior art is considered to be document D4.

The problem addressed in the present application is to be regarded as to provide an improved seal structure.

The present application does not meet the requirements of Art. 33(3) because the subject-matter of claims 1-13 is not novel and therefore not inventive.

4 Industrial applicability (Art. 33(4) PCT)

The subject-matter of claims 1-13 is considered to be industrially applicable.

Re Item VII

Certain defects in the international application

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1-D7 is not mentioned in the description, nor is this document identified therein.

Re Item VIII

Certain observations on the international application

The scope of claim 1 is unclear since claim goes beyond the scope of claim 1. The possibility that the back-up structure is formed in the separator is not included in claim 1.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/JP2004/014576
